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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,235	05/25/2001	Hendrik Arend Visser	US018073	2625

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EXAMINER

PHU, SANH D

ART UNIT	PAPER NUMBER
2682	

DATE MAILED: 08/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/865,235

Applicant(s)

VISSER, HENDRIK AREND

Examiner

Sanh D Phu

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is responsive to the amendment filed on 6/1/2004.

Claim Rejections – 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minasi (5,789,995) in view of Itoh (6,341,216) previously cited.

Regarding to claim 1, 9, 11 and 15 see Fig. 1, col. 1, line to col. 2, line 12, Manasi discloses a transceiver for radio frequency signals, said transceiver comprising:

a transmit branch (TX, CR1, C1) that is coupled to an antenna feed point (col. 1, lines 23- 51);

a receive branch (RX, CR2, C2, L1, C1) comprising a first network (L1, C1) with an output node and with an input node that is coupled to said antenna feed point, said first network being configured such that in a transmit mode of said transceiver said input node is switched as an open circuit by switching said output node as a short circuit (see col. 1, lines 42-51).

He does not disclose an output node switching being performed by an active switching component with a low break through voltage.

However, Itoh disclose an output node (33) switching being performed by an active switching component (34) (see Fig. 1).

At the time of the invention, it would have been obvious for one skilled in the art to integrate the active switch as taught by Itoh in order to control the input signal from antenna (see Fig. 1 of Itoh) so that it (34) switches efficiently between open circuit and short circuit mode. Therefore, it would have been obvious to combine Minasi with Itoh to obtain the invention as specified in the claim 1, 9, 11, and 15.

Regarding to claim 2, Minasi discloses that the transceiver wherein said first network comprises a capacitor (C1) that is coupled between said input

node and ground, an inductor (L1) that is coupled between said input node and said output node, and a first switch (CR1) that is coupled between said output node and said ground (see Fig. 1, col. 1, lines 10–22).

Regarding to claim 3, Minasi discloses that the transceiver wherein said first switch is MOS transistor (which is using FET transistor, see col. 1, lines 59–63).

Regarding to claim 4, 13 and 17, Minasi discloses that the apparatus wherein said receive branch comprises said first network (C1, L1) comprises a capacitor (C1) that is coupled between said input node and ground, an inductor (L1) that is coupled between said input node and said output node,

He does not disclose a low noise amplifier.

However, Itoh disclose a low noise amplifier (20) (see Fig. 1) that is coupled to output mode (see Fig. 1, col. 9. lines 11–19).

At the time of the invention, it would have been obvious for one skilled in the art to integrate the low noise amplifier as taught by Itoh in order to control signal to noise ratio of the receive branch so that the receiver operates

efficiently and stability. Therefore, it would have been obvious to combine Minasi with Itoh to obtain the invention as specified in the claim 4, 13 and 17.

Regarding to claim 5, Minasi discloses that the transceiver wherein said first network comprises a $1/4$ - λ transmission line that is coupled between said input node and said output node, and a second switch that is coupled between said output node and ground (see col. 1, lines 33–51).

Regarding to claim 6, Minasi discloses that the transceiver wherein said second switch is a Reed switch that is suitable to switch radio frequency signals (see col. 1, lines 10–51).

Regarding to claim 7, Minasi discloses that the transceiver wherein said transmit branch comprises a tank circuit, and a power transistor for providing a transmit power signal to said tank circuit when said transceiver is in said transmit mode, said tank circuit being directly connected to said antenna feed point, and said transceiver being configured to switch off said power transistor when said transceiver is in a receive mode (see col. 1, lines 23–67).

Regarding to claim 8, Minasi discloses that the transceiver wherein said transmit branch comprises a tank circuit, and a power transistor for providing a

transmit power signal to said tank circuit when said transceiver is in said transmit mode, and a second switch that is coupled between said tank circuit and said antenna feed point, said transceiver being configured to open said second switch when said transceiver is in a receive mode (see col. 1, lines 23–67).

Regarding to claim 10, Minasi discloses that the transceiver wherein said first network means (C1, L1) comprises capacitive means (C1) and inductive means (L1), and first switch means (CR2) for coupling said output node to ground when said transceiver is in a transmit mode, thereby causing, through said capacitive means and said inductive means, said input node to become an open circuit (see col. 1, lines 42–51).

Regarding to claim 12, Minasi discloses that the radio frequency transceiver module wherein said first network means comprises capacitive means and inductive means, and first switch means for coupling said output node to ground when said radio frequency transceiver module is in a transmit mode, thereby causing, through said capacitive means and said inductive means, said input node to become an open circuit (see col. 1, lines 42–51).

Regarding to claim 14, Minasi discloses that the radio frequency transceiver module wherein said first network means comprises $1/4$ - λ transmission line means, and second switch means for coupling said output node to ground when said radio frequency transceiver module is in a transmit mode, thereby causing, through $1/4$ - λ transmission line means, said input node to become an open Circuit (see col. 1, lines 33–51).

Regarding to claim 16, Minasi discloses that the apparatus wherein said first network comprises a capacitor (C1) that is coupled between said input node and ground, an inductor (L1) that is coupled between said input node and said output node, and a first switch (CR2) that is coupled between output node and said ground (see Fig. 1, col. 1, lines 10–22).

Regarding to claim 18, Minasi discloses that the apparatus wherein said first network comprises a $1/4$ - λ transmission line that is coupled between said input node and said output node, a second switch that is coupled between said output node and ground (see col. 1, lines 33–51).

Response to Arguments

3. Applicant's arguments with respect to claims 1, 9, 11, 15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanh D Phu whose telephone number is (703) 305-8635. The examiner can normally be reached on 8:00-16:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 703-301-6739. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-8635.

Sanh D. Phu
Examiner
Art Unit 2682

SP


LEE NGUYEN
PRIMARY EXAMINER